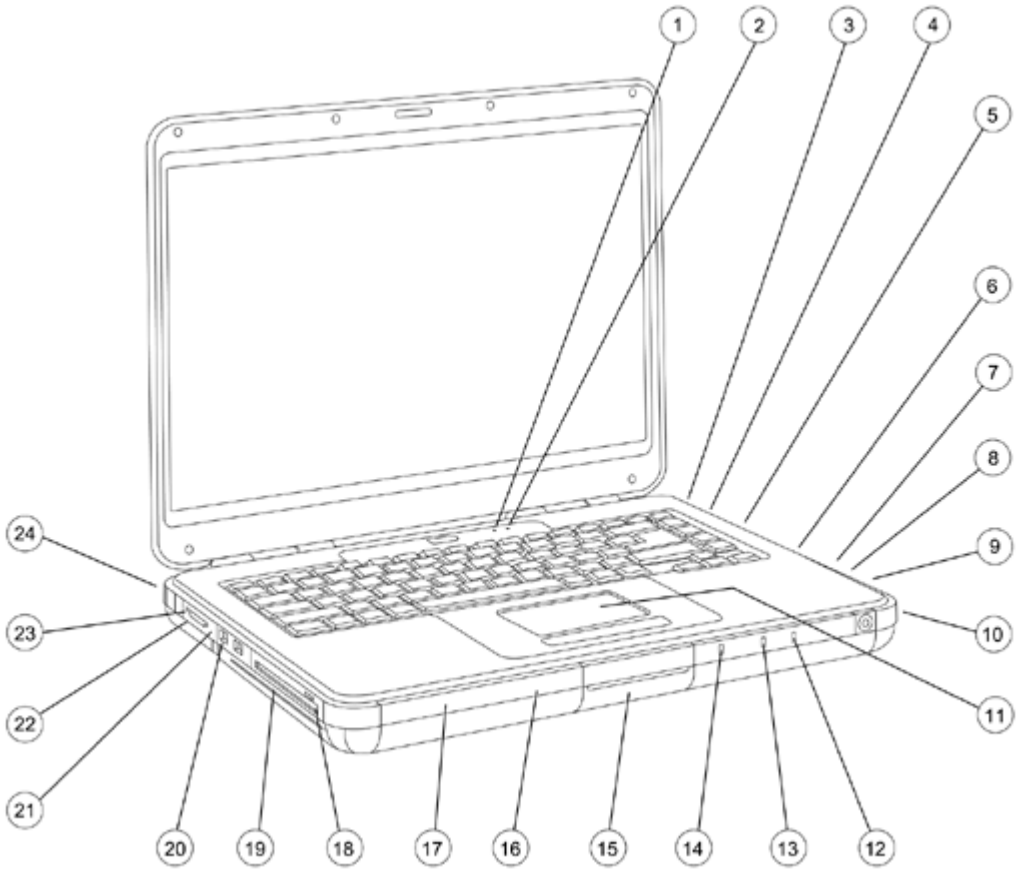
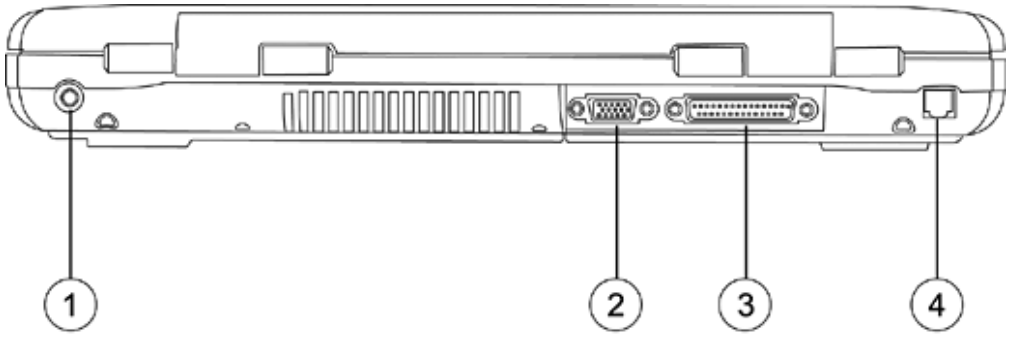
Overview

HP recommends Microsoft® Windows® XP Professional



1. CAPS Lock LED
2. Numeric Lock LED
3. S-video port
4. RJ-45 network jack
5. Port Replicator
6. 1394
7. USB 2.0 (1 of 3) Port
8. Microphone jack/audio in
9. Headphone Jack
10. Volume Down/Volume Up/Mute Controls
11. Touchpad
12. Wireless On/Off Button
13. Battery Charger LED
14. Hard Drive Activity LED
15. Display Release Latch
16. Power LED
17. Wireless On/Off Button
18. Optical Drive
19. HP USB Digital Drive dock or Diskette Drive (select models)
20. USB 2.0 (2 of 3) ports
21. PC Card Eject Button
22. PC Card slot
23. 5-in-1 Digital Media Slot
24. Security cable slot

Overview



1. Power Connector
2. VGA
3. Parallel
4. RJ-11

This document covers features which could potentially be found in this notebook platform, please see sku specific information on what specific features are found in the standard models that HP offers.

At A Glance

- Intel® Pentium® 4 Processor up to 3.4 GHz w/HT
- Microsoft Windows XP Professional,
  Microsoft Windows XP Home
  (Windows 2000 drivers available via web)
- ATI Radeon 9000 integrated graphics
- 15.4" display
- 333-MHz DDR SDRAM 2 SODIMM slots available – upgradeable to 2048 MB
- 30-GB 4200 rpm up to 80-GB 5400 rpm, user-removable hard drives
- Integrated 10/100 Ethernet NIC
- Touchpad with dedicated up/down scroll and on/off switch
- Protected by a one-year, Worldwide Limited Warranty – certain restrictions and exclusions apply. Certain restrictions and exclusions apply. For details, consult the Product Information Centre at 1-888-882-6672.
- Fixed Optical Drives: CD-ROM, DVD, CD-RW/DVD Combo & DVD+RW

What's New

- Microsoft Windows XP Professional,
  Microsoft Windows XP Home and
  Windows 2000 drivers available via web.
- 15.4-inch WXGA display with wide-viewing angle
- ATI Mobility Radeon 9000 integrated graphics
- 802.11 a/b/g wireless LAN modules
- Removable HP USB Digital Drive that docks in your notebook
- 5-in-1 Media Reader for quick file sharing
- HP Notebook Expansion Base compatible

Overview

What's Special

- Microsoft Windows XP Professional,
  Microsoft Windows XP Home
  (Windows 2000 drivers available via web)
- Removable HP USB Digital Drive...upgradeable SD media based diskette replacement.
- 15.4-inch WXGA Wide-screen viewing angle.
- Broad range of connectivity support including integrated IEEE-1394, and three USB 2.0 ports.
- 5-in-1 Media Reader for quick file sharing.
- Optional integrated 802.11a/b/g, 802.11 b/g wireless LAN.
- Optional integrated Bluetooth.
- Supports HP Notebook Expansion Base.
- Preinstalled HP Mobile Printing driver makes on-the-go printing quick and easy.

Standard Features

Processors	3.40-GHz Intel Pentium 4 Processor with 800-MHz Processor Side Busi, with Hyperthreatinf and 512-KB L2 cache 3.20-GHz Intel Pentium 4 Processor with 800-MHz Processor Side Bus, with Hyperthreading and 512-KB L2 cache 3.06-GHz Intel Pentium 4 Processor with 533-MHz Processor Side Bus, with Hyperthreading and 512-KB L2 cache	
Operating System *One of the following*	Microsoft Windows XP Professional Microsoft Windows XP Home Microsoft Windows 2000 drivers available via web.	
Chipset	ATI Mobility Radeon 9000 IGP	
Displays	Internal	15.4-inch WXGA wide viewing angle with 1280x800 resolution (16 M colours)
	External	Up to 32-bit per pixel colour depth Supports 640 x 480, 800 x 600, 1024 x 768, 1280 x 768, 1280 x 1024, or 1600 x 1200 resolutions up to 100-Hz refresh rate, dependent upon monitor capability, and resolution and colour depth settings
Memory	Standard	Configurable from 256 to 2048-MB 333-MHz DDR SDRAM (SODIMM in slot 1)
Communications	10/100 NIC High speed 56K modem with digital line guard **NOTE:** Designed only to allow faster downloads from compliant sources. Maximum achievable download transmission rates currently do not reach 56 KB/s, and will vary with line conditions. **NOTE:** Modem availability is subject to country regulatory approval.	
Keyboard	The 101/102-key compatible keyboard features an industry standard, full-width layout with desktop keyboard features, such as the isolated inverted-T cursor control keys, 3x2 editing keys, both left and right control and alt keys, and 11 function keys. The US layout has 84 keys and the International layout 85 keys. Other features include an integrated numeric keypad, hotkeys for instant access to power conservation, brightness, display selection, and other features, 19.05- mm x 19.05-mm key pitch (centre-to-centre spacing), 2.5-mm stroke, comfort-dished keycaps, and bright key legends for improved visibility in low light conditions.	
Pointing Device	Touchpad with up/down scroll with on/off switch.	
PC Card Slots	nx9110: One Type IIPC Card Slot which supports both 32-bit CardBus and 16-bit PC Cards	

Standard Features

Storage	**Diskette Drives**	Dock for HP USB Digital Drive; or weight saver
	Hard Drives	30-GB 4200 rpm
		40-GB 4200 rpm
		60-GB 4200 rpm
		80-GB 4200 rpm
		60-GB 5400 rpm
		80-GB 5400 rpm
	Optical Drives	DVD+RW
		24X DVD/CD-RW
		8X DVD
		24X CD-ROM
	Flash Media Reader	5-1 Media Reader (SD; MultiMediaCard; Smart Media; Sony Memory Stick and Memory Stick Pro) **CAUTION:** This notebook PC does not support Memory Stick Duo Cards or Memory Stick Duo Adapters. Inserting one of these cards or adapters into your notebook PC can damage the memory card or adapter and/or the notebook PC.

Multimedia	Two integrated branded stereo speakers External volume and mute controls Stereo Headphone/Line out Stereo Microphone in Software MPEG1 support DVD movie playback software DVD+RW Drive DVD/CD-RW Combo Drive DVD-ROM Drive CD-ROM Drive

Standard Features

Interfaces	PC Card Slot	One Type I/II
	External Monitor	1
	Microphone in	1
	Headphone/Line out	1
	DC Power	1
	RJ-11 (modem)	1
	RJ-45 (NIC)	1
	Parallel Port	1
	5 in 1 Media reader	1
	S-video TV out connector	1 (support for NTSC/PAL)
	USB version 2.0 Port	3
	Docking Connector	1
	LED Status Indicators	10 (including 2 LEDs on the RJ-45 plug)
	IEEE-1394	1 (4-pins)

Graphics

ATI Mobility Radeon 9000 (UMA)
64 MB standard with 256-MB shared system memory
128 MB standard with 512-MB+ shared system memory

Audio

HP Premier Sound 16-bit sound
SoundMAX with Pure Audio
2 Stereo Speakers
Headphone out and microphone jacks
Stereo Headphone/Line out and microphone jack

Software

Preinstalled Software

Adobe Acrobat Reader 6.0
HP Mobile Printing Driver
HP Help and Support (Microsoft Windows XP only)
Synaptics Touchpad Driver
WinDVD 4.0 – DVD Player (for optional DVD+RW, DVD/CDRW combo and DVD drives)*
Symantec Antivirus software
NOTE: Symantec Norton Antivirus 2003 (Complimentary 60 days Live Update).
Sonic RecordNow 6.5 (for optional DVD+RW & DVD/CDRW combo drives)

Software Provided on CD

WinDVD Creator 2.0 – DVD Authoring (for optional DVD+RW drives)

Additional Software Available from the Web
Microsoft Windows 2000 drivers

NOTE: *Software is loaded on the hard drive and must be installed by running the Setup Compaq Software utility.

Standard Features

System Recovery

Each unit is shipped with a recovery CD kit containing Operating System Recovery and Driver/Application Recovery CDs. These CDs allow users to either recover or repair the notebook operating system and select drivers without losing personal data. The Operating System CD also provides the option of reinstalling the operating system software provided with the notebook.

Security

Supports a range of standard security features including

Standard Features

Configuration Control through F10 set-up
Memory Change Alert
Setup Password
Power-On Password
DriveLock
Kensington Lock Slot

Power Supply

External 120 watt-AC adapter, 6-foot (1.8-metre) power cord included
Total length including External AC adapter is 12 ft (3.66 m)

Battery

Primary Batteries

8-cell Lithium-Ion (4.4Ah) – standard.
12-cell Lithium-Ion (4.4Ah) – required for all processors above 3.06 GHz.

Battery Life

8-cell primary Lithium-Ion battery provides up to 2 hours and 33 minutes of battery life.
12-cell primary Lithium-Ion battery provides up to 3 hours and 59 minutes of battery life.

Notebook Battery Life benchmark results	
HP Compaq nx9000	
Processor/RAM	Intel Pentium 4 2.66GHz
Hard drive/Mfr.	Fujitsu 60 GB
Video Driver	Radeon 9000 IGP
Resolution/colours	15.4 WXGA
CD-ROM	DVD-ROM
Operating System	XP Home, SP1
BIOS release	F08
Battery chemistry	Lithium-Ion
Nominal rating	12 cell, 6600 mAH, 14.8V

BWS Batterymark 2002		**Run Date**
	3 hours 59 minutes	10/27

Standard Features

Power Management Settings		
Scheme	**Portable/Laptop**	**Comments**
Turn off monitor	Never	
Turn off hard disks	3 mins	
System Standby	Never	
Hibernation	Never	
LCD Brightness	Half	
Volume control	Half	

NOTE: Actual results may vary with product model, configuration, and individual usage. Hewlett-Packard testing of a HP Compaq nx with a Intel Pentium 4 2.66 GHz CPU, Windows XP Pro, 15.0-inch WXGA LCD, 512-MB RAM, 60-GB hard drive, 14.8V Lithium-Ion battery, and NIC/modem, achieved an overall BWS Batterymark 2002 score of 3h 59 m (2h 33m with 8-cell battery) Winstone is a registered trademark and BatteryMark™ is a trademark of Ziff Davis Publishing Holdings Inc. in the U.S. and other countries. Copyright 2002 Ziff Davis Media Inc. All Rights Reserved. System parametres followed test recommendations: panel brightness set to half, but no less than 60 nits, power management scheme - Laptop/Portable, hard drive timer set to 3 minutes, standby and video timers set to never. Wireless (802.11 and Bluetooth) turned off.

NOTE: This test was performed without independent verification by eTesting Labs Inc. eTesting Labs Inc. makes no representations or warranties as to the result of the test. BatteryMark is a trademark of Ziff Davis Publishing Holdings Inc., and affiliate of eTesting Labs Inc., in the U.S. and other countries.

Battery Re-Charge Time

System in OFF mode OR	3.5 – 4 hours for 12 cell battery
Standby	2 – 3 hours for 8 cell battery
System On (Dependent on system power consumption)	3.5 – 8 hours

Power Conservation

Hibernation

Instant-on via standby

ACPI compliance

NOTE: Enhanced Intel SpeedStep™ technology support is only on Mobile Intel Pentium-4 processors.

Standard Features

Wireless Devices

Support a broad range of secure, integrated wireless LAN options featuring support for the latest industry standards. Integrated Bluetooth is also an option and can be combined with any one of the supported wireless LAN options.

All integrated wireless LAN options	Wi-Fi certified Cisco Compatible Extensions support Wired Equivalent Privacy (WEP) support up to 128bit keys Wi-Fi Protected Access (WPA) support 802.1x standards support including EAP-TLS, Protected EAP (PEAP) and Cisco-EAP (LEAP) Dual antennas integrated in the display enclosure
HP W500 802.11a/b/g	Integrated support for 802.11a, b and g Up to 54mbps throughput performance Advanced Encryption Standard (AES) support
Broadcom Wireless 802.11b wireless LAN	Integrated support for 802.11b Up to 11mbps throughput performance
Broadcom 54g Maxperformance 802.11b/g WLAN	Integrated support for 802.11 b and g Up to 54mbps throughput performance
Integrated Bluetooth	Designed to the Bluetooth v1.1 specification

Docking

The optional HP Notebook Expansion Base provides elevated support for your notebook and eliminates the need for an external monitor. Automatically recharges notebook battery when connected. Features include RJ-11/Modem pass through, RJ-45/Ethernet and legacy serial port, as well as 6 USB ports.

Service and Support

HP Services includes a one-year, Worldwide Limited Warranty, pick-up or carry-in and toll-free 7 x 24 hardware technical phone support. On-site service* is also available.

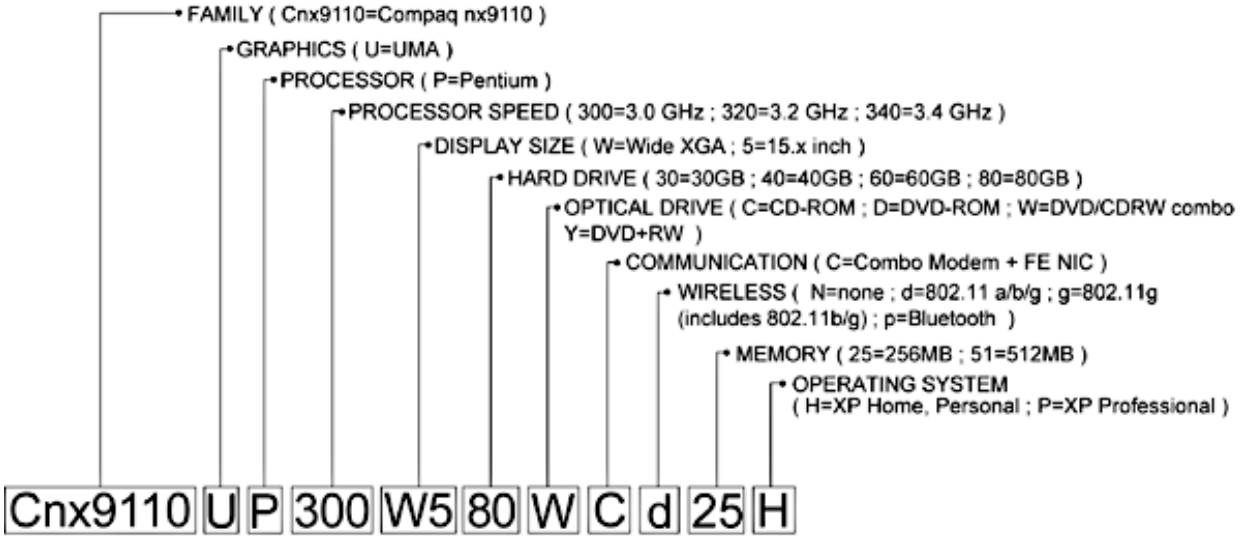
NOTE: Certain restrictions and exclusions apply. For details, consult the Product Information Centre at 1-888-882-6672.
http://wwss1pro.hp.com/support/warranty_upgrades/product_specific_warranty.asp.

*on-site service available through HP Care Pack Services for US only.

Naming Convention

The Etymology of a Model name:

Standard Features


FAMILY (Cnx9110=Compaq nx9110)
GRAPHICS (U=UMA)
PROCESSOR (P=Pentium)
PROCESSOR SPEED (300=3.0 GHz ; 320=3.2 GHz ; 340=3.4 GHz)
DISPLAY SIZE (W=Wide XGA ; 5=15.x inch)
HARD DRIVE (30=30GB ; 40=40GB ; 60=60GB ; 80=80GB)
OPTICAL DRIVE (C=CD-ROM ; D=DVD-ROM ; W=DVD/CDRW combo ; Y=DVD+RW)
COMMUNICATION (C=Combo Modem + FE NIC)
WIRELESS (N=none ; d=802.11 a/b/g ; g=802.11g (includes 802.11b/g) ; p=Bluetooth)
MEMORY (25=256MB ; 51=512MB)
OPERATING SYSTEM (H=XP Home, Personal ; P=XP Professional)
Cnx9110 U P 300 W5 80 W C d 25 H

Models

Cnx9110UP300X540WCd51P
PG425UA#ABA (English)
PG425UA#ABC (Fr CAN)

Processor	3.0 GHz Intel Pentium 4
Operating System	Microsoft Windows XP Professional, Microsoft Windows XP Home (Windows 2000 drivers available via web)
Display	15.4-inch colour TFT XGA with (1280x800) resolution (16M colours)
Cache Memory	512 KB, L2 Cache
Standard Memory	512 MB (2 DIMM) 333 MHz DDR
Maximum Memory	2048 MB (333 MHz) DDR
Hard Drive	40 GB
Optical Drive	DVD/CD-RW ROM Drive
Communications	56K high speed modem, integrated 10/100 NIC HP W500 802.11a/b/g
Graphics	ATI Mobility Radeon 9000 IGP 64MB shared with system memory
Audio	16-bit stereo sound, integrated 2 JBL Pro speaker
Warranty	One Year

Standard Features

Cnx9110UP320W560WCm51P
PG426UA#ABA (English)
PG426UA#ABC (Fr CAN)

Processor	3.2 GHz Intel Pentium 4
Operating System	Microsoft Windows XP Professional, Microsoft Windows XP Home (Windows 2000 drivers available via web)
Display	15.4-inch coluor TFT WXGA with (1280x800) resolution (16M colours)
Cache Memory	512 KB, L2 Cache
Standard Memory	512 MB (2 DIMM) 333 MHz DDR
Maximum Memory	2048 MB (333 MHz) DDR
Hard Drive	60 GB
Optical Drive	DVD/CD-RW ROM Drive
Communications	56K high speed modem, integrated 10/100 NIC HP W500 802.11a/b/g
Graphics	ATI Mobility Radeon 9000 IGP 128MB shared with system memory
Audio	16-bit stereo sound, integrated 2 JBL Pro speakers
Warranty	One Year

Options

Accessories Matrix (10/31/03)		Blue Standalone Option Kit Part Number
Storage	HP 5GB PC Card	DF928A
	USB Diskette Drive	230330-B25
	HP USB Digital Drive + 128 MB SD	DL702A
	SD Card Memory (128 MB)	FA135A#AC3
	SD Card Memory (256 MB)	FA136A#AC3
	SD Card Memory (512 MB)	FA184A#AC3
Memory	256-MB DDR RAM (333 MHz)	DC389B
	512-MB DDR RAM (333 MHz)	DC390B
	1024-MB DDR RAM (333 MHz)	DC890B
Expansion	4-port USB 2.0 Hub	DG954A
	HP Notebook Expansion Base	DN937A#ABA
Power	12-cell Lithium-Ion 4.Xah Battery	DP399A
	135W 3-wire AC Adapter	DR910A#ABA
Carrying Cases	HP Entry Value Carrying Case	DL617A
	HP Top Load Nylon Case	DC915A
	HP Top Load Leather Case	DC917A
	HP Executive Nylon Case	DC916A
	HP Sport Backpack	DG102A
Security	PC Card Smart Card Reader	DC350B
	Security Cable Lock	DC368A
Input/Output Devices	USB Travel Mouse (optical scroll mouse)	F2100A
	USB/PS2 Keyboard	DC852A#ABA
	USB/PS2 Keyboard (French)	DC852A#ABC
	USB/PS2 Mouse	DC369A
	HP Wireless Mouse + Keyboard Kit	DL989A#ABA
	HP Wireless Mouse + Keyboard Kit(French)	DL989A#ABC

Options

HP Care Pack Services	Installation for 1 HP Desktop or Laptop; Basic	U7843E
	Next Business Day Onsite, HW Support, CPU only, 1 yr	U4389E
	Next Business Day Onsite, HW Support, CPU only, 4 yrs	U7875E
	Next Business Day Onsite, HW Support, CPU only, 5 yrs	U7876E
	Accidental Damage, Pick-up & Return, HW Support, CPU only, 1 yr	U4399E
	Accidental Damage, Pick-up & Return, HW Support, CPU only, 3 yrs	U4400E
	Pick-Up & Return, HW Support, CPU only, 3 yrs	U4395E
	Pick Up & Return, CPU only, 4 yrs	U7881E
	Pick Up & Return, CPU only, 5 yrs	U7882E
	Next Day Onsite Response, CPU Only, 3 yrs	U4391E
	Post Warranty Service, Pick-Up & Return, HW Support, CPU only	U4397PE
	Post Warranty Service, Next Day Onsite, CPU Only	U4393PE

HP Compaq nx9110 Business Notebook

Standard Memory Plus Optional Memory

Support for up to 2048 MB of 333-MHz DDR SDRAM memory is available with the installation of optional DDR SDRAM Memory Kits.

Zero memory on system board
2 Slots total
1-256MB DIMM installed in Slot 1
1-Additional open Memory Slot

NOTE: 1 slot user accessible-located underneath the unit, 1 slot located underneath the keyboard deck.

Memory	Slot 1	Slot 2
256 MB	256 MB	Empty

Standard Memory with Optional Memory Upgrades

Support for up to 2048-MB of SDRAM is available with the installation of optional SDRAM Memory Upgrades.

Memory	Slot 1	Slot 2
256 MB	256 MB	Empty
512 MB	256 MB	256 MB
512 MB	512 MB	Empty
768 MB	512 MB	256 MB
1024 MB	1024 MB	Empty
1024 MB	512 MB	512 MB
1280 MB	1024 MB	256 MB
1536 MB	1024 MB	512 MB
2048 MB	1024 MB	1024 MB

NOTE: This chart does not represent all possible memory configurations. Due to the non industry standard nature of some third-party memory modules, we strongly recommend using only HP branded memory modules to ensure compatibility.

Following are memory options available from HP:

- 1024-MB 333-MHz DDR Memory Upgrade DC890B
- 512-MB 333-MHz DDR Memory Upgrade DC390B
- 256-MB 333-MHz DDR Memory Upgrade DC389B

NOTE: Due to the non industry standard nature of some third-party memory modules, we strongly recommend using only HP branded memory modules to ensure compatibility.

Removable Media Drive Support

System Drive Support	Quantity Supported
DVD+RW	Up to 1
DVD/CD-RW Combo Drive	Up to 1
DVD-ROM Drive	Up to 1
CD-ROM Drive	Up to 1

Hard Drive Support

System Drive Support	Quantity Supported	Drive Bay Supported
30-GB 4200 rpm SMART Hard Drive	Up to 1	Dedicated hard drive bay.
40-GB 4200 rpm SMART Hard Drive	Up to 1	Dedicated hard drive bay.
60-GB 4200 rpm SMART Hard Drive	Up to 1	Dedicated hard drive bay.
80-GB 4200 rpm SMART Hard Drive	Up to 1	Dedicated hard drive bay.
60-GB 5400 rpm SMART Hard Drive	Up to 1	Dedicated hard drive bay.
80-GB 5400 rpm SMART Hard Drive	Up to 1	Dedicated hard drive bay.

Technical Specifications

System Unit	**Dimensions** (HxWxD)	15.4 TFT panel display support	1.67 x 14.25 x 10.96 in (42.4 x 362 x 278.5 mm)
	Weight	With 8-cell std battery & weight saver	7.515 lb (3.42 kg) with 14.1-inch display 7.731 lb (3.51 kg) with 15.0-inch display 7.786 lb (3.54 kg) with 15.4-inch display
		With 12-cell std battery & diskette drive	8.328 lb (3.79 kg) with 15.4-inch display
		With 12-cell std battery & weight saver	8.040 lb (3.65 kg) with 15.4-inch display
		With 12-cell std battery & garage	8.216 lb (3.73 kg) with 15.4-inch display without Cage device 8.260 lb (3.75 kg) with 15.4-inch display with Cage device
	NOTE: Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components.		
	Stand-Alone Power Requirements*	Nominal Operating Voltage	14.8V (on 8-cell battery) 14.8V (on 12-cell battery) 18.5V (on AC power)
	(*Power Requirements will vary based on SKU configuration)	Average Operating Power (Estimating Batterymark condition is considered average operating condition)	50W (While system works with Intel Pentium 4 3.2GHz)
		Peak Operating Power (Power user scenario with CPU operating at 75% condition)	100W (While system works with Intel Pentium 4 3.2GHz)
		Power in suspend mode	< 500 mW
		Power in hibernation mode	< 50 mW
	Temperature	Operating	50° to 95° F (10° to 35° C)
		Non-operating	-4° to 140° F (-20° to 60° C)
	Relative Humidity	Operating	10% to 90% relative humidity, non-condensing
		Non-operating	5% to 90% relative humidity, 101.6° F (38.7° C) maximum wet bulb temperature
	Shock	Operating	40 G, 2 ms, half-sine
		Non-operating	240 G, 2 ms, half-sine
	Vibration	Operating	0.5 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate
		Non-operating	1.0 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate
	Maximum Altitude (unpressurized)	Operating	0 to 10,000 ft (3,048 m) (14.7 to 10.1 psia)
		Non-operating	0 to 30,000 ft (9,144 m) (14.7 to 4.4 psia)
	Industry Standard Certifications	Blue Angel	No
		UL	Yes
		Energy Star	Yes
		Canadian Safety	Yes

CSA (Canada)	Yes
TUV GS	Yes
Nordic Safety	Yes
Mexican Safety	Yes
Poland Compliance	Yes
Australia/NZ Compliance	Yes
CCC	Yes
Taiwan Greenmark	Yes
Japan Compliance	Yes
MIC	Yes
BSMI	Yes
CE Marking Compliance	Yes
KONCAR	Yes
GOST	Yes
SASO	Yes
SABS	Yes
UKRSERTCOMPUTER	Yes

External AC Adapter w/PFC	**Weight**	1.39 lb (0.63 kg) (adapter) 0.287 lb (0.13 kg) (power cord)	
	Power Supply (Input)	Operating Voltage	90 to 264 VAC RMS
		Operating Current	2.0 A RMS
		Operating Frequency Range	47 to 63 Hz AC
		Maximum Transient	4/50 kV

Primary Lithium-Ion Battery Pack 12-cell	**Dimensions** (H x W x L)	6.0 x 4.63 x .81 in (12.24 x 11.76 x 2.06 cm)	
	Weight	1.298 lb (0.59 kg)	
	Cells/Type	12-cell Lithium-Ion	
	Energy	Voltage	14.8V
		Amp-hour capacity	6.6 Ah
		Watt-hour capacity	96Wh
	Temperature	Operating	41° to 113° F (5° to 45° C)
		Non-operating	32° to 140° F (0° to 60° C)
	Battery Re-Charge Time	System in OFF mode or Standby	3.5 - 4 hours
		System ON (depending on system power consumption)	3.5 - 8 hours

Technical Specifications

Primary Lithium-Ion Battery Pack 8-cell	**Dimensions** (H x W x L)	6.0 x 4.63 x .81 in (12.24 x 11.76 x 2.06 cm)	
	Weight	1.013 lb (0.46 kg)	
	Cells/Type	8-cell Lithium-Ion	
	Energy	Voltage	14.4 V
		Amp-hour capacity	4.4 Ah
		Watt-hour capacity	65Wh
	Temperature	Operating	41° to 113° F (5° to 45° C)
		Non-operating	32° to 140° F (0° to 60° C)
	Battery Re-Charge Time	System in OFF mode or Standby	2-3 hours
		System ON (depending on system power consumption)	3.5 - 8 hours

15.4-Inch Colour TFT WXGA Display with wide viewing angle	**Active Area** (H x W)	13.0 x 8.1 in (33.1 x 20.7 cm)	
	Diagonal Size	15.4 in (39.1 cm)	
	Mounting	Internal Panel Supports, Side Mounted	
	Number of Colours	Up to 16.8M	
	Contrast Ratio	200:1	
	Brightness	180nt typ	
	Pixel Resolution	Pitch	0.259 mm
		Format	1280 x 800
		Configuration	RGB stripe
	Backlight	Edge Lit	
	Character Display	80 x 25	
	Viewing Angle	±65° Horizontal, ±50° Vertical (typical)	

Hard Drives

Technical Specifications

80-GB 5400 rpm	**Drive Weight**	0.22 lb (99 g)	
	Capacity	80 GB	
	Height	0.74 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-6	
	Transfer Rate	Synchronous (maximum)	100 MB/s (Drive Capability)
		Security	ATA Security
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	5400 rpm	
	Logical Blocks	156,301,488	
	Operating Temperature	41° to 131° F (5° to 55° C)	
	Features	Security	ATA Security
60-GB 5400 rpm	**Drive Weight**	0.22 lb (99 g)	
	Capacity	60 GB	
	Height	0.374 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-5	
	Transfer Rate	Synchronous (maximum)	100 MB/s (Drive Capability)
		Security	ATA Security
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	5400 rpm	
	Logical Blocks	117,210,240	
	Operating Temperature	41° to 131° F (5° to 55° C)	
	Features	Security	ATA Security

Technical Specifications

80-GB 4200 rpm	**Drive Weight**	0.22 lb (99 g)	
	Capacity	80 GB	
	Height	0.74 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-5	
	Transfer Rate	Synchronous (maximum)	100 MB/s (Drive Capability)
		Security	ATA Security
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	4200 rpm	
	Logical Blocks	156,301,488	
	Operating Temperature	41° to 131°F (5° to 55°C)	
	Features	Security	ATA Security
60-GB 4200 rpm	**Drive Weight**	0.22 lb (99 g)	
	Capacity	60 GB	
	Height	0.74 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-5	
	Transfer Rate	Synchronous (maximum)	100 MB/s (Drive Capability)
		Security	ATA Security
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	4200 rpm	
	Logical Blocks	117,210,240	
	Operating Temperature	41° to 131°F (5° to 55°C)	
	Features	Security	ATA Security

Technical Specifications

40-GB 4200 rpm	**Drive Weight**	0.22 lb (99 g)	
	Capacity	40 GB	
	Height	0.374 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-5	
	Transfer Rate	Synchronous (maximum)	100 MB/s (Drive Capability)
		Security	ATA Security
	Seek Time (typical reads, including settling)	Single Track	3.0 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	4200 rpm	
	Logical Blocks	78,140,160	
	Operating Temperature	41° to 131° F (5° to 55° C)	
	Features	Security	ATA Security
30-GB 4200 rpm	**Drive Weight**	0.22 lb (99 g)	
	Capacity	30 GB	
	Height	0.374 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-5	
	Transfer Rate	Synchronous (maximum)	100 MB/s (Drive Capability)
		Security	ATA Security
	Seek Time (typical reads, including settling)	Single Track	2.5 ms
		Average	12 ms
		Maximum	23 ms
	Rotational Speed	4200 rpm	
	Logical Blocks	58,605,120	
	Operating Temperature	41° to 131° F (5° to 55° C)	
	Features	Security	ATA Security

Technical Specifications

CD-ROM Drive	**Access Times**	Random	<110 ms CD
		Full Stroke	<220 ms CD
	Max data transfer rate	24X CD-ROM	3,600 KB/s
	Transfer Mode	Multiword DMA Mode 2	
	Interface	EIDE	
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW	
	Supported Media (write)	None	
	Max Media Capacity (read)	700MB	
	Max Media Capacity (write)	None	
	Transport	Tray Loading	

DVD-ROM Drive	**Access Times**	Random	<100 ms CD
			<125 ms DVD
		Full Stroke	<175 ms CD
			<225 ms DVD
	Max data transfer rate	24X-CD-ROM	3,600 KB/s
		24X-CD-R	3,600 KB/s
		24X-CD-RW	3,600 KB/s
		8X-DVD-ROM	10,800 KB/s
	Transfer Mode	Multiword DMA Mode 2	
	Interface	EIDE	
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM	
	Supported Media (write)	None	
	Max Media Capacity (read)	4.7 GB	
	Max Media Capacity (write)	None	
	Transport	Tray Loading	

Technical Specifications

DVD+RW Drive	**Access Times**	Random	<175 ms CD
			<230 ms DVD
		Full Stroke	<285 ms CD
			<335 ms DVD
	Max data transfer rate	24X CD-ROM	3,600 KB/s
		8X DVD	10,800 KB/s
		16X CD-R	2,400 KB/s
		8X CD-RW	1,200 KB/s
		2X DVD+R	2,700 KB/s
		2X DVD+RW	2,700 KB/s
	Transfer Mode	Multiword DMA Mode 2	
	Interface	EIDE	
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW	
	Supported Media (write)	CD-R, CD-RW, DVD+R, DVD+RW	
	Max Media Capacity (read)	4.7GB	
	Max Media Capacity (write)	4.7GB	
	Transport	Tray Loading	

DVD/CD-RW Combo Drive	**Access Times**	Random	<110 ms CD
			<130 ms DVD
		Full Stroke	<210 ms CD
			<225 ms DVD
	Max data transfer rate	24X CD-ROM	3,600 KB/s
		24X CD-R	3,600 KB/s
		24X CD-RW	3,600 KB/s
		8X DVD-ROM	10,500 KB/s
	Transfer Mode	Multiword DMA Mode 2	
	Interface	EIDE	
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM, DVD-R, DVD+R, DVD-RW, DVD+RW, DVD-RAM	
	Supported Media (write)	CD-R, CD-RW	
	Max Media Capacity (read)	4.7GB	
	Max Media Capacity (write)	700MB	
	Transport	Tray Loading	

Audio	**Hardware**	**Implementation**	AC97 CODEC
		Audio Signal Link to CPU	Audio CODEC (AC) link
		Full Duplex	Yes
		Stereo Inputs	Line In – 20K Impedance (with Port Replicator only) Microphone – 20K Impedance
		Stereo Outputs	Headphone jack, S/PDIF from Port Replicator only
	Audio Output Quality	**Frequency Response**	20 Hz – 20 kHz
		Signal to Noise Ratio	>90dB
		Total Harmonic Distortion	0.01%
		Noise Floor	-120dB
		Play/Record Sampling Rate(s)	7 kHz – 48 kHz
		AD/DA Resolution	16 bit
	2 Stereo Speakers	**Amplifier Power**	2-Watts RMS
		Speaker Impedance	4-Ohms

Communications

HP W500 802.11a/b/g WLAN	**Wireless LAN Standards**	IEEE 802 Part 11a (802.11a) IEEE 802. Part 11b (802.11b) IEEE 802. Part 11g (802.11g)
	Interoperability	Wi-Fi certified (details available at http://www.hp.com/go/notebooks/wlan)
	Frequency Band	2.4 and 5 GHz
	Data Rates	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM
	Security	64 and 128 bit WEP encryption Support for WiFi Protected Access (WPA) including TKIP, MIC Hardware-accelerated support for the Advanced Encryption Standard (AES; 256-bit encryption) Support for 802.1x authentication types: EAP-TLS, LEAP (Cisco), PEAP (Microsoft implementation); more details available at http://www.hp.com/go/notebooks/wlan. Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program).
	Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
	Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK

Technical Specifications

Network Architecture	Ad-hoc (Peer to Peer)	
Models	Infrastructure (Access Point Required)	
Roaming	IEEE 802.11 compliant roaming between 802.11a and 802.11b/g access points	
Output Power	802.11b: 17 dBM (typical) 802.11a/g: 15 dBM (typical)	
Power Consumption	Transmit: 2.0 W (max) Receive: 1.5 W (max) Sleep mode: 20 mW (max)	
Power Management	ACPI compliant power management 802.11 Compliant Power Saving Mode Power Saving Mode selectable through the configuration utility	
Receiver Sensitivity*	54 Mbps: -70 dBm to 1 Mbps: -90 dbm	
Antenna type	High efficiency dual band antenna with polarization diversity, mounted in the display enclosure	
Range**	802.11a – Typical	500 feet – Outdoors Open Area 150 feet – Indoor, Office-environment
	802.11 b – Typical	1200 feet – Outdoor Open Area 300 feet – Indoor, Office environment
	802.11 g – Typical	1000 feet – Outdoor Open Area 200 feet – Indoor, Office environment
Form Factor	MiniPCI Type IIIA	
Weight	0.036 lb (16.5 g)	
Dimensions	0.19 x 2.00 x 2.35 in (4.8 x 50.95 x 59.75 mm)	
Operating Voltage	3.3v	
Temperature	Operating Non-operating	32° to 122° F (0° to 50° C) -14° to 158° F (-10° to 70° C)
Humidity	Operating Non-operating	10% to 90% 5% to 95%
Altitude	Operating Non-operating	0 to 15,000 ft (4,572 m) 0 to 40,000 ft (12,192 m)
Configuration Utility	Choice of Configuration Utility: • Atheros Client Utility for Microsoft Windows 2000 or XP (required for Cisco Compatible Extensions support) • Microsoft Windows XP Wireless Zero Configuration Utility **NOTE:** May also be compatible with certain third party software supplicants	
LED Activity	LED Off – Radio OFF; Solid LED – Radio ON	
Agency Approvals	Details at http://www.hp.com/go/notebooks/wlan.	

*Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation)

** End-user may not obtain typical ranges due to environmental factors such as RF interference, RF signal obstructions, RF absorbing materials, and other RF traffic

Technical Specifications

Broadcom 802.11b WLAN	**Wireless LAN Standards**	IEEE 802. Part 11b (802.11b)
	Interoperability	Wi-Fi certified (details available at http://www.hp.com/go/notebooks/wlan)
	Frequency Band	2.4 GHz
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps
	Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK
	Security	64- and 128-bit WEP encryption Support for WiFi Protected Access (WPA) including TKIP, MIC Support for 802.1x authentication types: EAP-TLS, LEAP (Cisco), PEAP (Microsoft implementation); more details available at http://www.hp.com/go/notebooks/wlan. Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program).
	Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
	Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
	Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
	Roaming	IEEE 802.11 compliant roaming between 802.11b/g access points
	Output Power	13.5 dBm (typical)
	Power Consumption	Transmit: 1.0 W (max) Receive: 850 mW (max)
	Power Management	ACPI compliant power management 802.11 Compliant Power Saving Mode Power Saving Mode selectable through the configuration utility
	Receiver Sensitivity*	11 Mbps: -84 dBm to 1 Mbps: -92 dBm
	Antenna type	High efficiency dual band antenna with polarization diversity, mounted in the display enclosure
	Range**	802.11 b – Typical: 1200 feet – Outdoor Open Area 300 feet – Indoor, Office environment
	Form Factor	MiniPCI Type IIIA
	Weight	0.027 lb (12 g)
	Dimensions	0.19 x 2.00 x 2.35 in (4.8 x 50.95 x 59.75 mm)
	Operating Voltage	3.3v
	Temperature	Operating: 32° to 122° F (0° to 50° C) Non-operating: -14° to 158° F (-10° to 70° C)
	Humidity	Operating: 10% to 90% Non-operating: 5% to 95%
	Altitude	Operating: 0 to 15,000 ft (4,572 m) Non-operating: 0 to 40,000 ft (12,192 m)
	Configuration Utility	Choice of Configuration Utility: • Broadcom Client Utility for Microsoft Windows 2000 or XP (required for Cisco Compatible Extensions support) • Microsoft Windows XP Wireless Zero Configuration Utility

		NOTE: May also be compatible with certain third party software supplicants.
	LED Activity	LED Off – Radio OFF; Solid LED – Radio ON
	Agency Approvals	Details at: http://www.hp.com/go/notebooks/wlan.

* Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation)
** End-user may not obtain typical ranges due to environmental factors such as RF interference, RF signal obstructions, RF absorbing materials, and other RF traffic

Broadcom 54g Maxperformance 802.11g WLAN	**Wireless LAN Standards**	IEEE 802. Part 11b (802.11b) IEEE 802. Part 11g (802.11g)
	Interoperability	Wi-Fi certified (details available at http://www.hp.com/go/notebooks/wlan)
	Frequency Band	2.4 GHz
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM
	Security	64 and 128 bit WEP encryption Support for WiFi Protected Access (WPA) including TKIP, MIC Hardware-accelerated support for the Advanced Encryption Standard (AES; 256-bit encryption) Support for 802.1x authentication types: EAP-TLS, LEAP (Cisco), PEAP (Microsoft implementation); more details available at http://www.hp.com/go/notebooks/wlan. Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program).
	Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
	Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
	Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
	Roaming	IEEE 802.11 compliant roaming between 802.11b/g access points
	Output Power	802.11b: 13.5 dBm (typical) 802.11g: 13.5 dBm (typical)
	Power Consumption	Transmit: 1.1 W (max) Receive: 900 mW (max)
	Power Management	ACPI compliant power management 802.11 Compliant Power Saving Mode Power Saving Mode selectable through the configuration utility
	Receiver Sensitivity*	54 Mbps: -65 dBm to 1 Mbps: -92 dBm
	Antenna type	High efficiency dual band antenna with polarization diversity, mounted in the display enclosure

Technical Specifications

	Range**	802.11 b – Typical	1200 feet – Outdoor Open Area 300 feet – Indoor, Office environment
		802.11 g – Typical	1000 feet – Outdoor Open Area 200 feet – Indoor, Office environment
	Form Factor	MiniPCI Type IIIA	
	Weight	0.027 lb (12 g)	
	Dimensions	0.19 x 2.00 x 2.35 in (4.8 x 50.95 x 59.75 mm)	
	Operating Voltage	3.3v	
	Temperature	Operating Non-operating	32° to 122° F (0° to 50° C) -14° to 158° F (-10° to 70° C)
	Humidity	Operating Non-operating	10% to 90% 5% to 95%
	Altitude	Operating Non-operating	0 to 15,000 ft (4,572 m) 0 to 40,000 ft (12,192 m)
	Configuration Utility	Choice of Configuration Utility: • Broadcom Client Utility for Microsoft Windows 2000 or XP (required for Cisco Compatible Extensions support) • Microsoft Windows XP Wireless Zero Configuration Utility **NOTE:** May also be compatible with certain third party software supplicants.	
	LED Activity	LED Off – Radio OFF; Solid LED – Radio ON	
	Agency Approvals	Details at http://www.hp.com/go/notebooks/wlan.	

* Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation)
** End-user may not obtain typical ranges due to environmental factors such as RF interference, RF signal obstructions, RF absorbing materials, and other RF traffic

Bluetooth by HP	**Form Factor**	Integrated USB module	
	Bluetooth	1.1 Compliant	
	Dimensions	1.02 x 0.55 x 0.22 in (26 x 14 x 5.7 mm)	
	Temperature	Operating	-4° to 158° F (-20° to 70° C)
		Non-operating	-40° to 176° F (-40° to 80° C)
	Humidity	10% to 90% operating 5% to 95% non operating	
	Altitude	Operating	15,000 ft (4,572 m)
		Non-operating	40,000 ft (12,192 m)
	Plug and Play	USB 1.1 compliant Microsoft Windows Plug and Play compliant	
	Frequency Band	2402 to 2480 MHz	
	Number of Available Channels	79 (1 MHz) available channels	

Technical Specifications

Data Rates and throughput	1 Mbps Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Asynchronous Connection Less links 723.2 kbps/57.6 kbps asymmetric or 433.9 kbps symmetric
Antenna type	Internally integrated within module
Range**	33 ft (10 m)
OS Support	Microsoft Windows XP Professional and Home Microsoft Windows 2000
Software Stack Supported	User may choose: Microsoft User Interface (Profiles supported: HID, DUN, HCRP) Widcomm User Interface (see profile support below)
Profile Support	General Access Profile Service Discovery Application Profile Serial Port Profile Generic Object Exchange Profile File Transfer Profile Synchronization Profile Dial-Up Networking Profile LAN Access Profile Object Push Profile Hard Copy Cable Replacement Profile Personal Area Networking Profile Human Interface Device Profile
Usage Models	Service Discovery (determine what Bluetooth devices are within range and support authorization) **Synchronization** PDAs to PCs Portable to Desktop **File Transfer** File and directory browsing and navigation on another Bluetooth device. File copying Object manipulation – including add, delete, create new folders etc. Wireless link to Corporate LAN using several Bluetooth devices sharing the same **Access Point** Corporate email, network neighborhood, access to LAN applications, file transfer, ftp, Internet browsing, etc, using TCP/IP Wireless link to WAN thru cell phone Agnostic to WAN technology Send/receive SMS messages Wireless link to Printer Adhoc peer to peer networking (two computers) or Personal Area Networking (PAN) using NDIS (< 7 computers) Adhoc Bluetooth Pico-networking (point to multi-point) Object Push – Business card or appointment exchange **Human Interface Devices** Wirelessly interface to notebook with mouse, keyboard, etc

		Printing Wirelessly print to Bluetooth enabled printers
	Transmit Power	-6dBm to 4 dBm (Bluetooth Class II)
	Receive Sensitivity	Better than -80 dBM at 0.1 % raw bit error rate
	Link Topology	Point to Point, Multipoint Pico Nets up to 7 slaves
	Security	Full support of Bluetooth Security Provisions
	Network Architecture Models	NAP (Network Access Point) PANU (PAN User) PAN GN (Group Adhoc Network)
	Power Requirement	Peak < 270 mW
	Power Management	Microsoft Windows ACPI, and USB Bus Support Wireless EAB On/Off Software On/Off control Self configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff
	Protocols Supported	TCP/IP IPX/SPX UDP
	LED Activity	Solid Blue LED – On LED Off – Power Off
	Certifications	All necessary regulatory approvals for countries we support including FCC (47 CFR) Part 15C, Section 15.247 & 15.249 ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark

** End-user may not obtain typical ranges due to environmental factors such as RF interference, RF signal obstructions, RF absorbing materials, and other RF traffic

Integrated 10/100 NIC	**Ethernet Features**	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)
	Power Management	ACPI 1.1a compliant -- multiple power modes Situation-sensitive features reduce power consumption
	Manageability	Wake-on-LAN from Standby (configurable; Magic Packet and Microsoft Wake-Up Frame) PXE 2.0 Remote Boot Statistics Gathering (RMON, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30))
	NIC Device Driver Name	Realtek 8101L 10/100 Integrated Controller

	Drivers Available	Windows XP Windows 2000 DOS NDIS2 and ODI
Agere Systems AC'97 Modem	**Form Factor**	MDC Daughtercard
	Power Management Support	APM Revision 1.2, ACPI
	Approvals/ Certifications	UL, CSA, NEMKO, CCIB, Industry Canada, FCC Part 68, CTR21, FCC Part 15 Class B, Canadian ICES-003 Class B, C.I.S.P.R.22, Australian ACA, CE Mark, Other Countries
	Data Mode Capabilities	High speed 56K modem (a-law, mu-law) V.8bis V.80 V44, V.42bis, MNP5 (Compression) V.42 (LAPM, MNP2-4) (Error Correction) V.34 (file date: 10/96) **Optional symbol rates:** 2800, 3429 Asymmetric Symbol rates **Synchronous primary channel data signaling rates:** 3600, 31200 Automatic rate re-negotiation V.32bis V.32 V.23 V.22bis V.22 V.21 Bell 212A Bell 103J
	Fax Mode Capabilities	TIA-578-S (Class 1) T.30, T.4 (Group 3) V.17 V.29 V.27ter V.21 Channel 2
	Command Set	V.250 (Partial) TIA-602 Identification: +GMI, +GMM, +GMR Port control: +IPR, +ICF, +IFC, +ILRR Modulation: +MS, +MR, +MA Error control: +ES, +ER, +EB, +ESR, +ETBM Data compression: +DS, +DR V.251

Technical Specifications

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